

ABSTRACT OF THE DISCLOSURE

A hybrid transfer case includes a mainshaft, front and rear output shafts, an electric motor/generator connected to the mainshaft, and an input clutch for selectively coupling the transmission to the mainshaft. The transfer case further includes a planetary gearset having a sun gear driven by the mainshaft, a ring gear, and planet gears supported from a carrier. A direct clutch is operable to selectively couple the rear output shaft for rotation with the input shaft. A low brake is operable to selectively brake rotation of the ring gear. A transfer clutch controls the amount of drive torque delivered through a transfer assembly to the front output shaft. A hybrid control system is provided for controlling actuation of the various clutch and brake assemblies and the electric motor/generator to establish various drive modes.